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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,384	04/17/2002	Daniel Gibilini	11965/3	7900

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EXAMINER

MAHONEY, CHRISTOPHER E

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/018,384

Applicant(s)

GIBILINI, DANIEL

Examiner

Christopher E Mahoney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on April 24, 2003 and April 28, 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-31 is/are allowed.
- 6) ☒ Claim(s) 1-20 and 32-36 is/are rejected.
- 7) ☒ Claim(s) 21-23 and 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10.
- 4) ☒ Interview Summary (PTO-413) Paper No(s) 11.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the subject matter of claim 1 *in combination with* the microballs of claim 12 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: Page 21, line 20, "methd" is mistyped.

Appropriate correction is required.

Claim Objections

Claims 1, 23 and 30 are objected to because of the following informalities:

The examiner is interpreting the language from claim 1 to mean that there is a volume comprised of the diffuser and the opaque layer where the substrate is adjacent to the volume. It

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is understood from an interview held with applicant's attorney that this is not meant to claim that the substrate is between the diffuser and the opaque layer. However, as claimed, it reads as if the substrate is between the diffuser and the opaque layer.

The examiner is interpreting the language from claims 23 and 30 to mean that there is a volume comprised of the diffuser and the opaque layer where the substrate is adjacent to the volume. It is that this is not meant to claim that a substrate covering the diffuser and a substrate is covering the opaque layer rather than the substrate is covering a volume comprised of the diffuser and the opaque layer. However, as claimed, it reads as if a substrate covers the diffuser and (possibly a second) substrate covers the opaque layer.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6, 8, 13, 15, 17, 32 and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 6, 8, 13, 15, and 32 the applicant is reciting the desired results to be achieved rather than the specific structure/elements necessary to achieve such a result.

Regarding claim 17 the portion of the claim reciting "preferably of a thickness ..." to the end of the claim does not positively recite that the thickness must be within the claimed range or not. Therefore it is unclear if the recited range is part of the claim or not. For examination

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purposes, it has not been given patentable weight. Additionally it is unclear how the spacer layer may be between the support and the diffuser (as recited in claim 17) if the support is adjacent the diffuser (as recited in claim 1).

Regarding claim 36 it is unclear how a spacer layer may be adjacent the opaque layer and still fulfill the requirements of the preceding claims. Either 1) The opaque layer is embedded in the support, in which case the spacer could not be adjacent the opaque layer since the diffuser is already adjacent the opaque layer (such as depicted in applicant's figure 4), or 2) Possibly the diffuser is embedded in the support and the opaque layer is adjacent to the diffuser (and therefore in contact with the support as recited in claim 35) but the substrate is adjacent the diffuser and opaque layer (claim 1) so the spacer can't also be adjacent the diffuser.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 14, 16-18 and 35-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Glenn, Jr. (U.S. Patent No. 3,523,717). Glenn, Jr. teaches a projection screen comprising a support 14B with focusing elements, said support being adjacent to a diffuser 14A having an active surface, said diffuser being adjacent to an opaque layer 22B with line shaped apertures 24B to allow light focused by the focusing elements to pass. A substrate 20A is adjacent to said diffuser and opaque layer. Regarding claim 17, as can be seen in figure 5 there is a space

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between the support and the diffuser. The space is comprised of the air gap (if any) and/or the opaque layer 20B.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-11, 15 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glenn, Jr. (U.S. Patent No. 3,523,717). Glenn, Jr. teaches the salient features of the claimed invention except for apertures from 2-200 micrometers or making up less than 5% of the surface, and focusing elements from 20 micrometers to 1 millimeter. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize apertures from 2-200 micrometers or making up less than 5% of the surface for the purpose of (achieving optimum contrast by) using an optimum range of light projection/ambient light rejection. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize focusing elements from 20micrometers to 1 millimeter for the purpose of using an optimum focus for a specific projected light (source) and audience. The applicant should note that it has been held that where the general working conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glenn, Jr. (U.S. Patent No. 3,523,717) in view of Dubin (U.S. Patent No. 6,278,546) or Altman (U.S.

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Patent No. 3,552,822). Glenn, Jr. teaches the salient features of the claimed invention except for microbeads as the focusing elements. Both Dubin (fig. 8) and Altman (fig. 1) teach that it was known to use microbeads as focusing elements. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features as taught by Dubin or Altman for the purpose of eliminating projector location dependence.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Glenn, Jr. (U.S. Patent No. 3,523,717) in view of Abbott (U.S. Patent No. 5,999,281). Glenn, Jr. teaches the salient features of the claimed invention except for utilizing a holographic diffuser. Abbott teaches that it was known to replace a structural diffuser with a holographic diffuser. The applicant is directed to review col. 1, lines 15-53 and col. 3, lines 1-5. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features as taught by Abbott for the purpose of chromatic correction.

Claims 1-3, 14, 16, 18-19, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okuda (U.S. Patent No. 6,049,423) in view of Miyata (U.S. Patent No. 6,295,162). Okuda teaches a projection screen comprising a support 14 with focusing elements 11, said support being adjacent to a diffuser 16 having an active surface, said diffuser being adjacent to an opaque layer 13 with line shaped apertures 12 to allow light focused by the focusing elements to pass. The applicant is directed to review figures 2-3. Okuda does not teach a substrate adjacent to said diffuser and opaque layer. Miyata teaches that it was known to provide a substrate 22 adjacent to said diffuser and opaque layer. The applicant is directed to review figures 1A, 2D and col. 5, line 66 to col. 6, line 8. It would have been obvious to one of

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ordinary skill in the art at the time the invention was made to utilize the features as taught by Miyata for the purpose of preventing roughening of image.

Allowable Subject Matter

Claims 21-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 23-31 are allowed.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

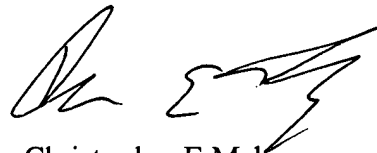
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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher E Mahoney whose telephone number is (703) 305-3475. The examiner can normally be reached on 8:30AM-5PM, Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on (703) 308-1436. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to read 'Christopher E Mahoney', is positioned above the printed name.

Christopher E Mahoney
Primary Examiner
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CM
July 13, 2003